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## Patent Abstracts of Japan

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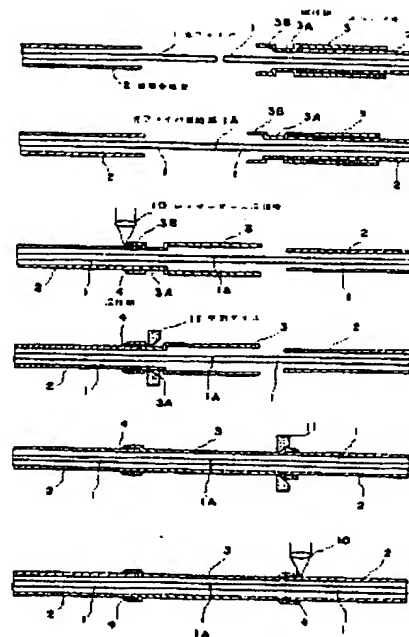
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TITLE : CONNECTION PART FOR  
METALLIC-PIPE COVERED OPTICAL  
FIBER AND CONNECTING METHOD  
THEREFOR



ABSTRACT : PURPOSE: To prevent transmission characteristic from deteriorating and to secure high mechanical strength by previously performing diameter machining for part of an end part of a sleeve pipe which has an internal diameter matching the external diameter of a metallic pipe, connecting the optical fiber and then reducing the diameter of a remaining diameter-unreduced part by extension until its internal diameter equals the internal diameter of the metallic pipe, and welding the metallic pipe.

CONSTITUTION: The diameter reduction machining the performed from a position which is 25mm away from one end to the sleeve pipe 3 to a position which is 50mm away, and parts of metallic pipes 2 and 2 from their terminal to positions which are 650mm away are cut and removed to expose optical fibers 1 and 1. The opposite side of reducer part 3A the pipe 3 is fitted onto the outer periphery of the end part of one pipe 2 and after the terminals of the optical fibers 1 and 1 are connected by fusion splicing and recoated with resin, the pipe 3 is drawn back from the state in Figure 2 to Figure 3 and welded to the metallic pipe 2. Then a half-split die 11 is fitted to the reducer part 3A and moved and the other end of the pipe 3 is reduced in diameter except part of it and welded. Thus, the pipes 2 and 3 become nearly equal in internal diameter and a connection part which has a discontinuous step part is formed.

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